

Review and Highlights from 2018-19

PRAMP Annual General Meeting
September 17, 2019



pramp
PEACE RIVER AREA MONITORING PROGRAM

Agenda

- About PRAMP Today
- Highlights from 2018-19
- Air Monitoring Network and Results (2010-2018)
- Looking Ahead



History of PRAMP

- Air monitoring in the Peace River area began in 2010
- Residents were concerned about odours, emissions, and health impacts
- Alberta Energy Regulator held an inquiry in 2014, and PRAMP formalized in 2015
- PRAMP recognized as an Airshed in 2016



Alberta's Airsheds

1. West Central Airshed Society (1995)
2. Wood Buffalo Environmental Association (1997)
3. Parkland Air Management Zone (1997)
4. Fort Air Partnership (1997)
5. Peace Airshed Zone Association (2002)
6. Palliser Airshed Society (2003)
7. Lakeland Industry and Community Association (2003)
8. Alberta Capital Airshed (2006)
9. Calgary Region Airshed Zone (2007)
10. Peace River Area Monitoring Program (2016)



PRAMP Operations

- Not-for-profit society: 10 Directors from community, industry, government and Indigenous groups
- Part-time Executive Director, two Technical Program Managers and Office Manager PLUS *Field Operations Assistant and Education and Outreach Coordinator*
- Air monitoring funded by Oil Sands Monitoring program through contract with AEP
- Outreach grant from AEP





Highlights from 2018-19

Stakeholder Engagement

- MD of Smoky River
- Northern Sunrise County
- Town of Peace River
- Town of Grimshaw
- Woodland Cree First Nation
- SARDA Trade Show
- Peace River Trade Show
- Mercer



Information Sharing

- Quarterly newsletters
- Twitter
- Facebook
- Monthly Dashboard Reports

Winter 2019 Newsletter

The Air Quality Health Index (AQHI) is coming to the Peace Region. The first location for PRAMP's new AQHI Station has been chosen - find out where ...

02/06/2019



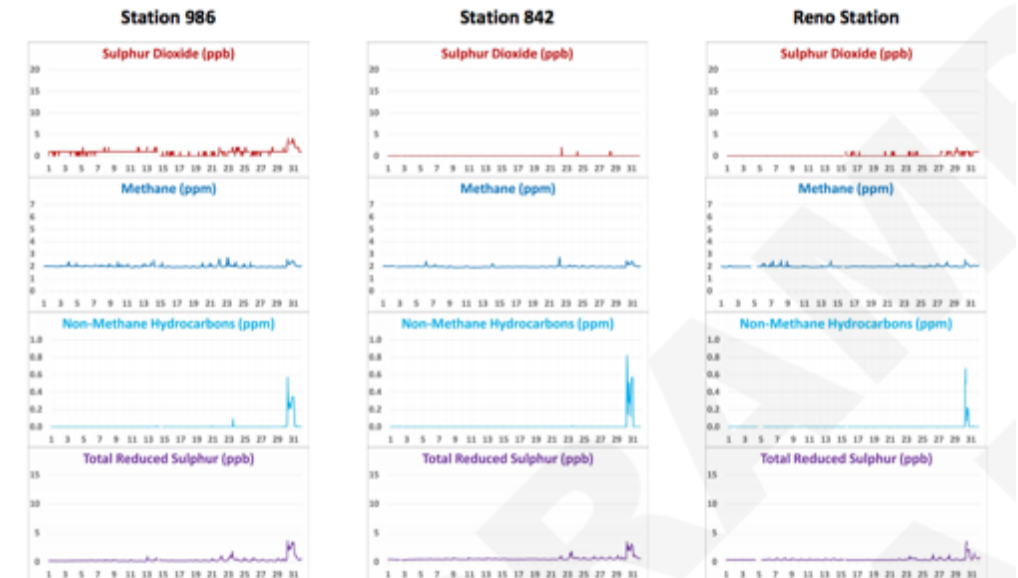
Fall 2018 PRAMP Newsletter

Read our Fall 2018 newsletter and plan to join PRAMP committee members for our Annual General Meeting on September 27th. Presentation by Bob Myrick, D ...

09/12/2018



May 2019: Continuous Monitoring Program



Operational Summary

986 Station:

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- Increasingly elevated TRS and NMHC concentrations were measured beginning on May 30. The cause was likely due to forest fire smoke from the High Level area.

842 Station:

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- Increasingly elevated TRS and NMHC concentrations were measured beginning on May 30. The cause was likely due to forest fire smoke from the High Level area.

Reno Station:

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All parameters met the 90% operational uptime requirement.



Collaboration with Airsheds



With Alberta Airsheds Council, PRAMP is:

- Assessing options to provide province-wide perspective on air quality
- Working with CASA to share information through CASA channels



Wildfire and Smoke – Spring 2019



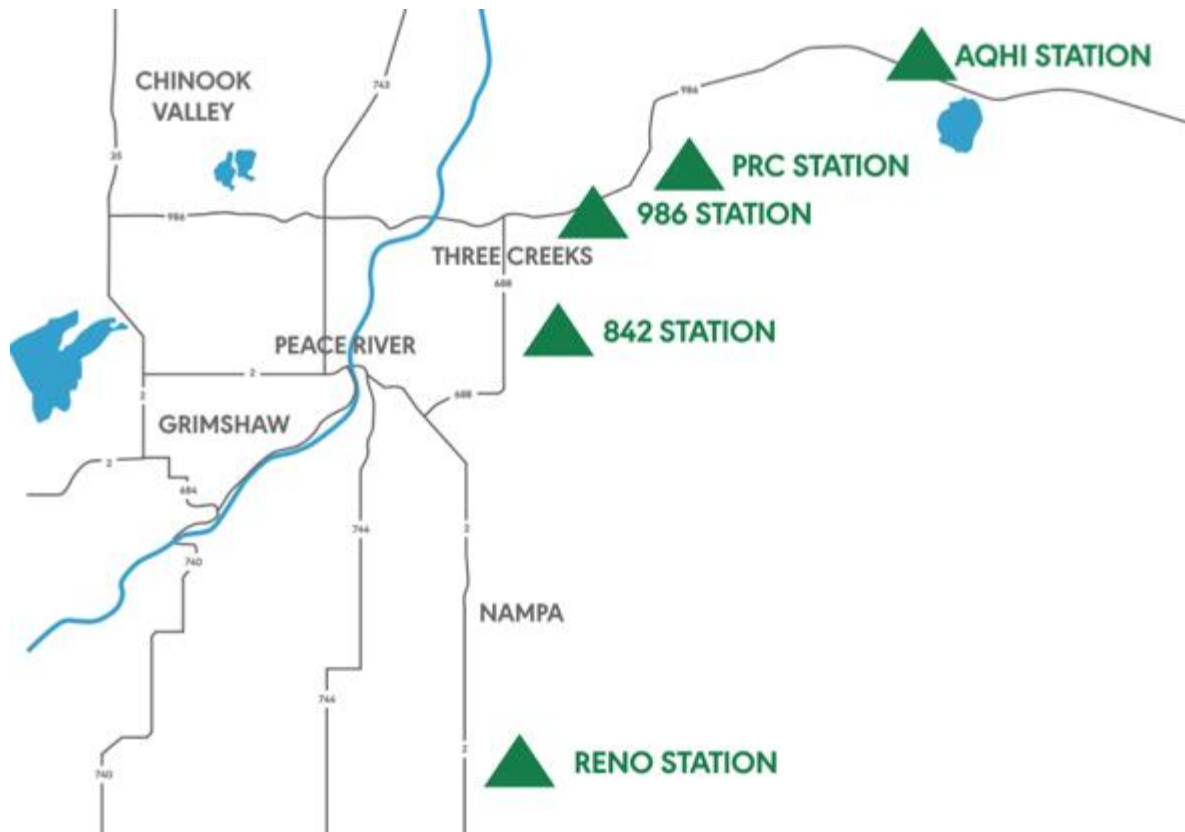
- Monitoring gap for Peace River and High Level area – no permanent publicly accessible monitoring for particulate matter
- Worked with government departments to share information about health and wildfire smoke
- New PRAMP station will provide valuable information about AQHI





Air Monitoring Network and Results

Monitoring Network



Continuously Monitored: Sulphur Dioxide, Total Reduced Sulphurs, Methane, Non-Methane Hydrocarbons, Wind Speed, Wind Direction, Relative Humidity, Temperature, Barometric Pressure PLUS:

Ozone, Fine Particulate Matter, Nitrogen Dioxide

Intermittently Monitored: Volatile Organic Compounds



Monitoring Network – Other Changes

- New location for 986 station
- New lease arrangement for 842 station



Monitoring Methods



Continuous



Canister



**Passive
(future)**



**Purple Air
(PM monitor)**

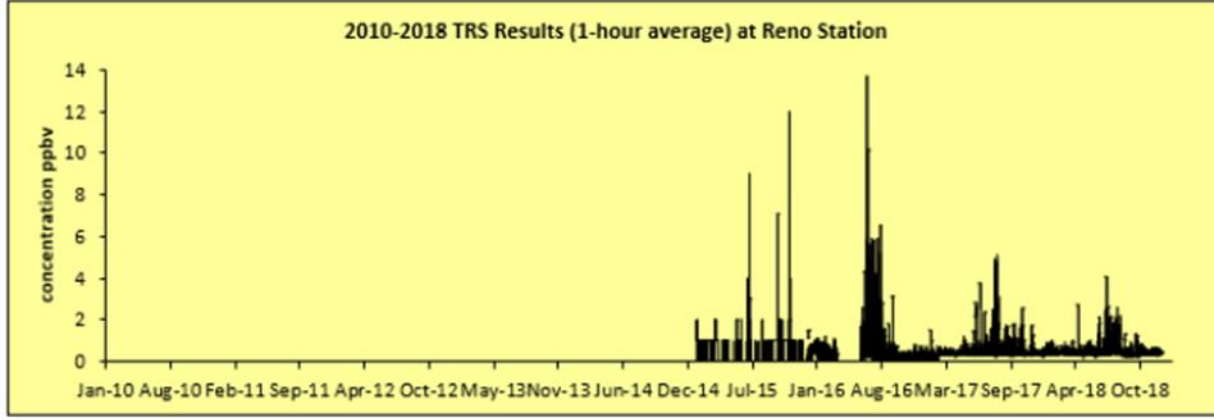
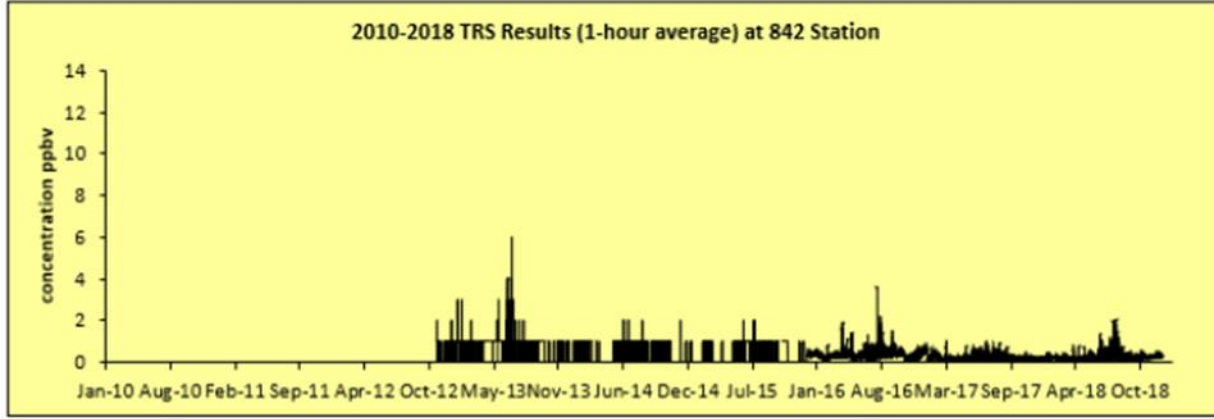
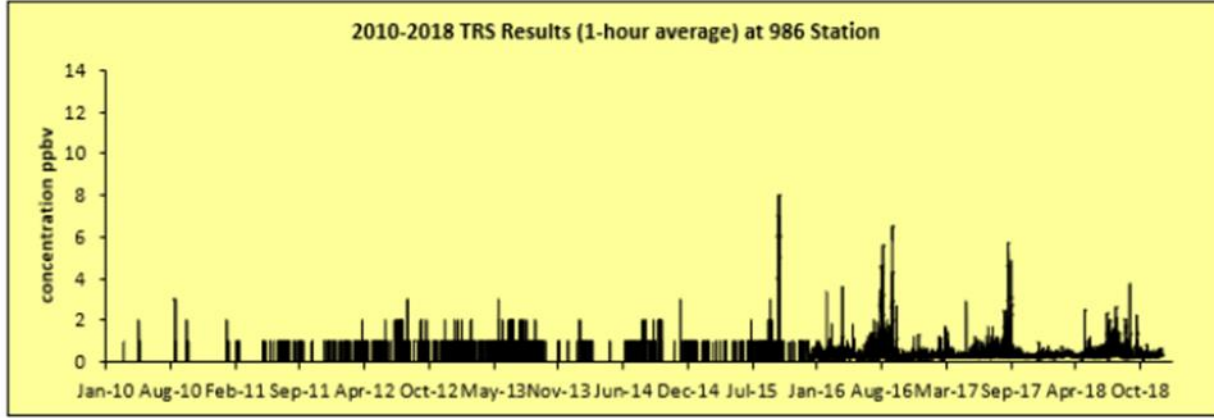


Total Reduced Sulphur

Reno

842

986

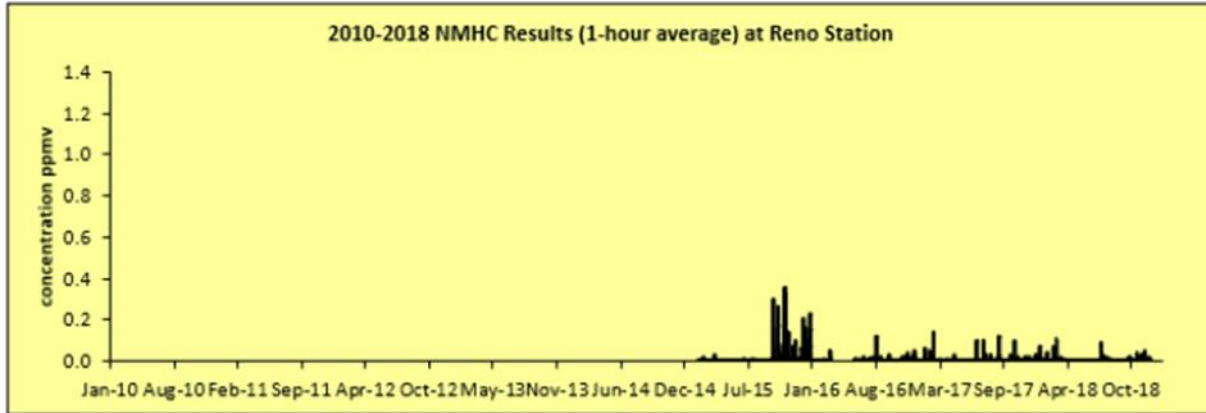
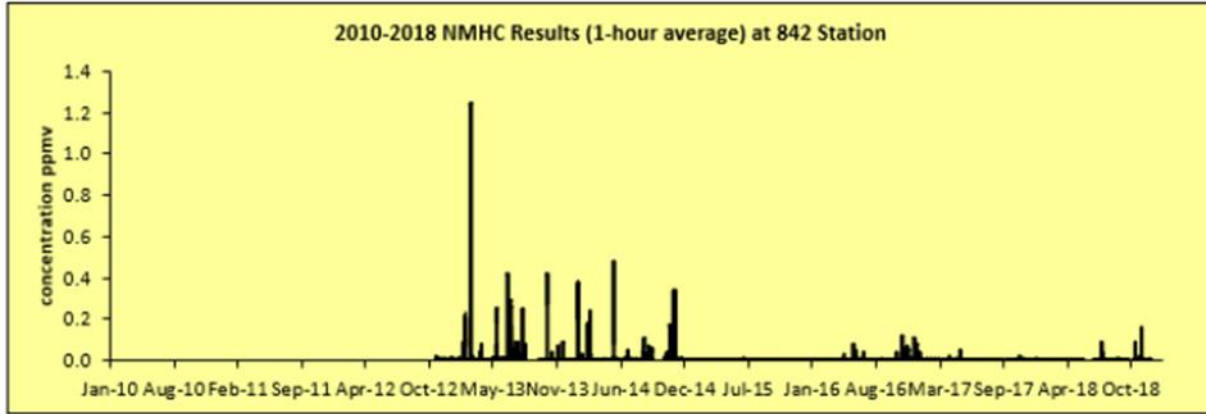
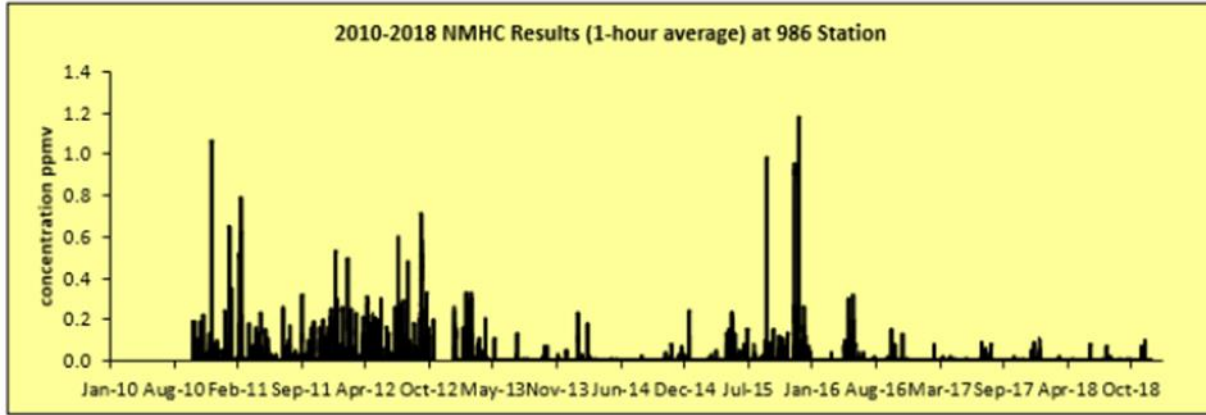


Non-Methane Hydrocarbons

Reno

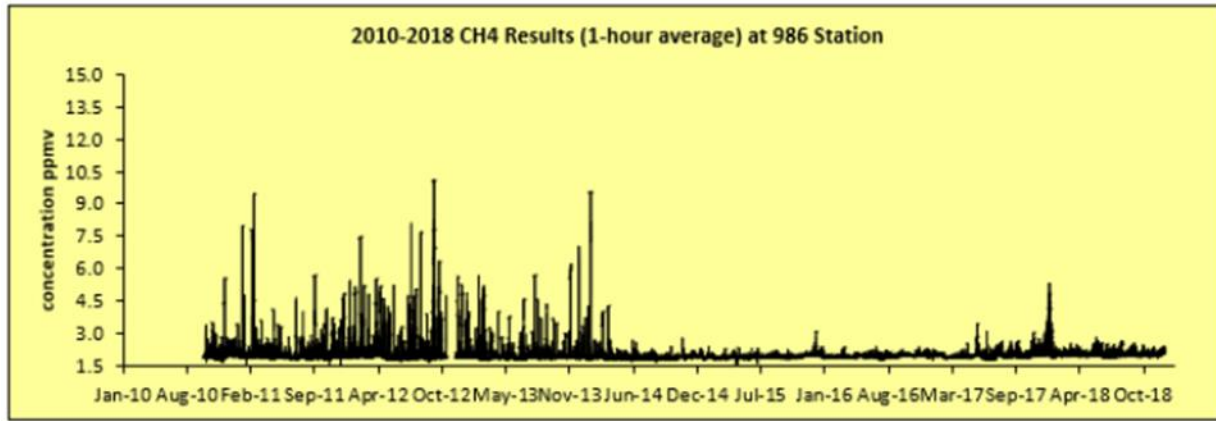
842

986

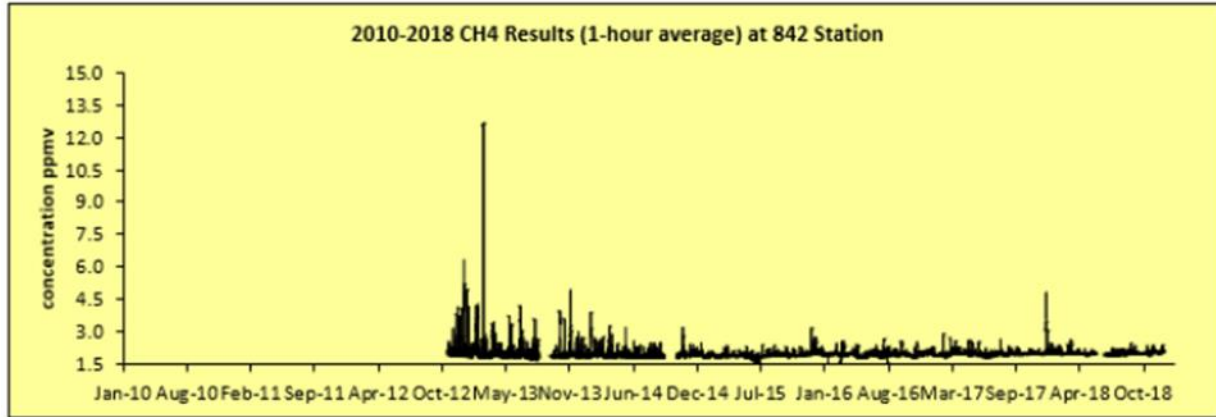


Methane

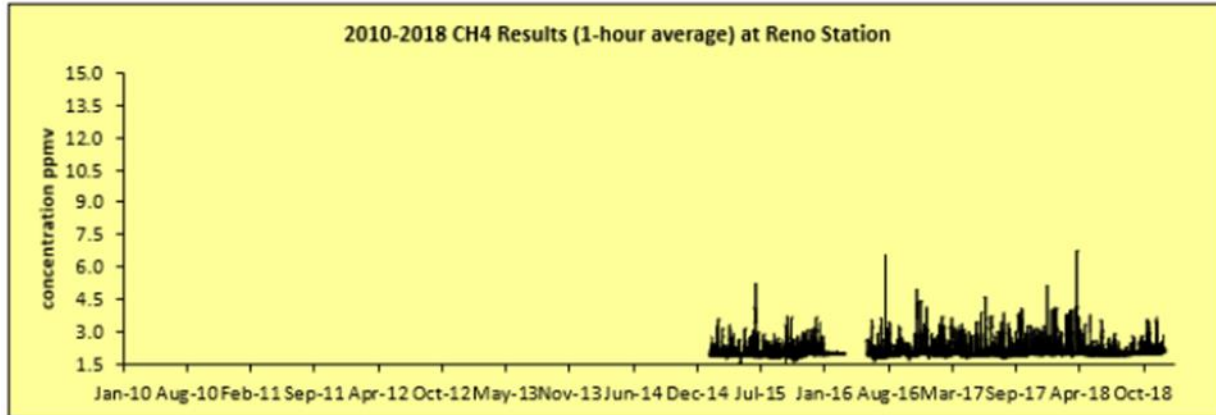
986



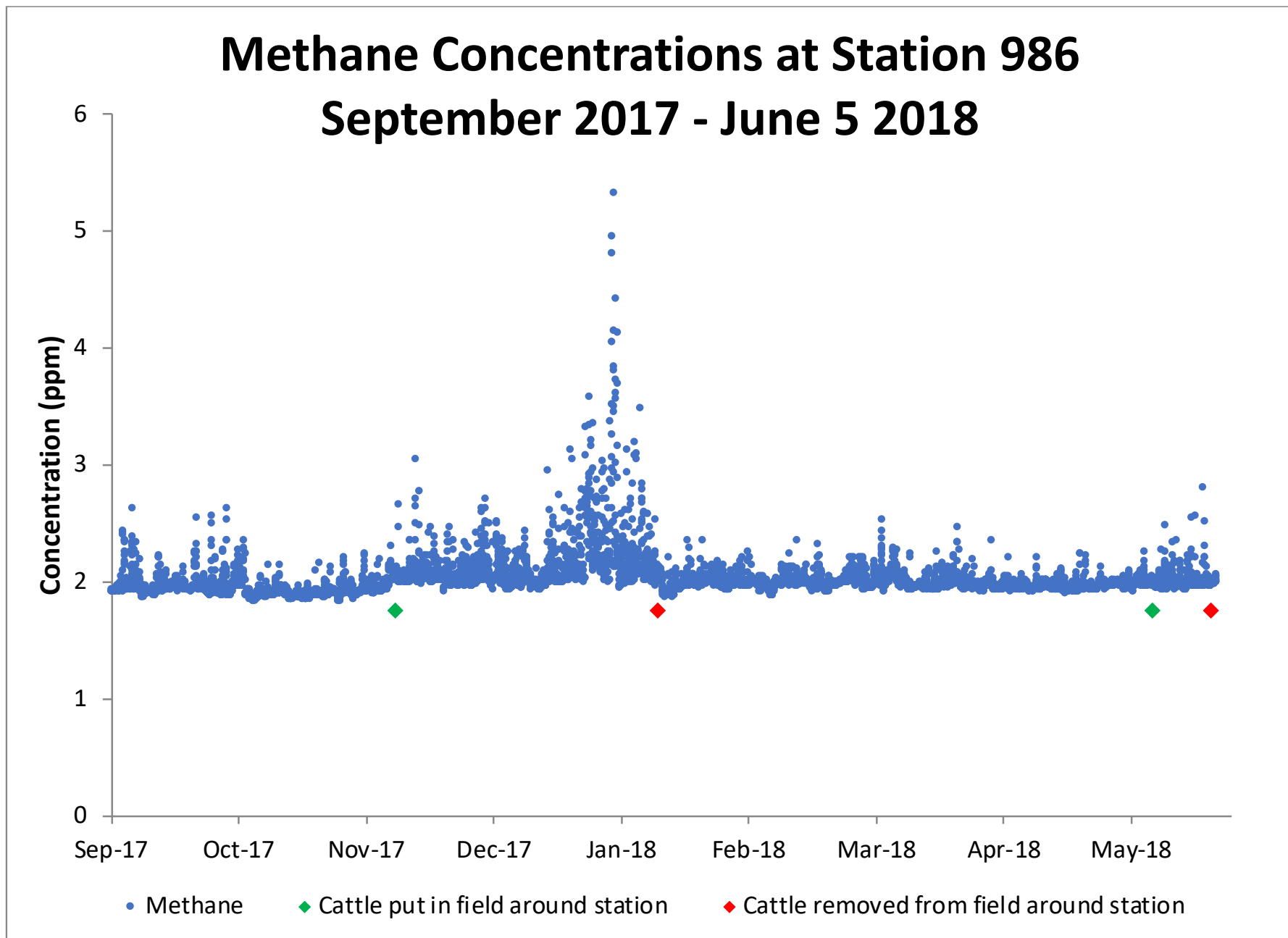
842



Reno



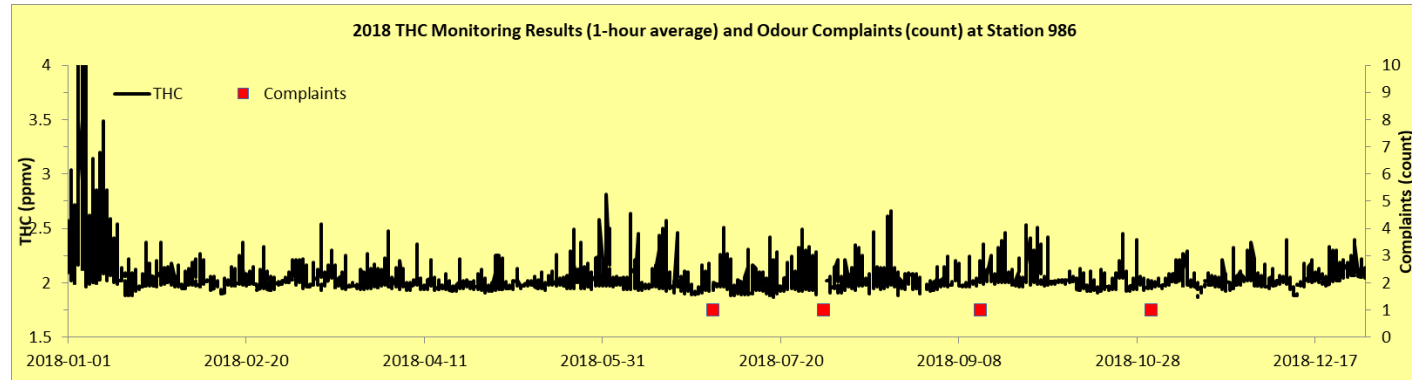
AQ Snapshot: Source Identification



AQ Snapshot: Complaints

Total
Number of
Complaints
4
(2018)

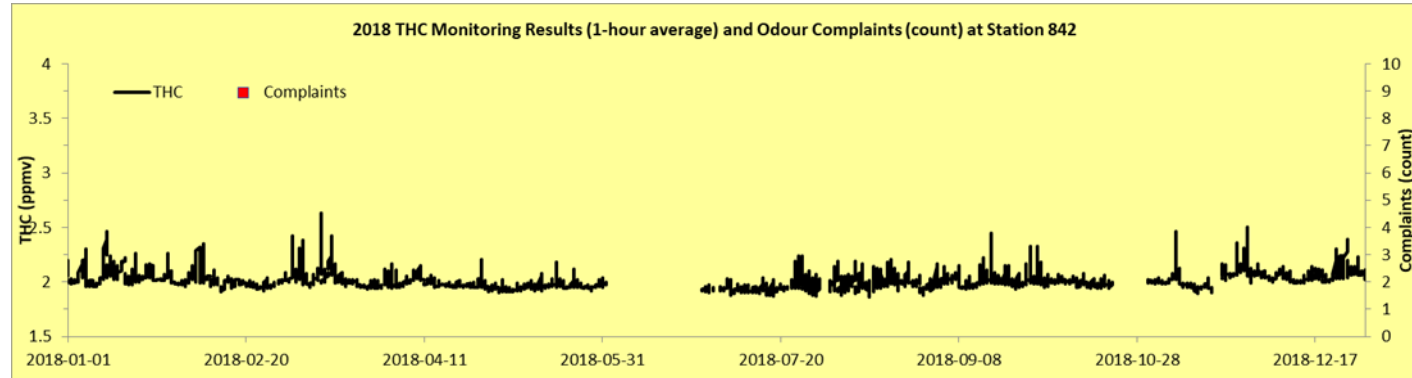
986



Maximum
Number of
Complaints
33
(2014)

Total
Number of
Complaints
0
(2018)

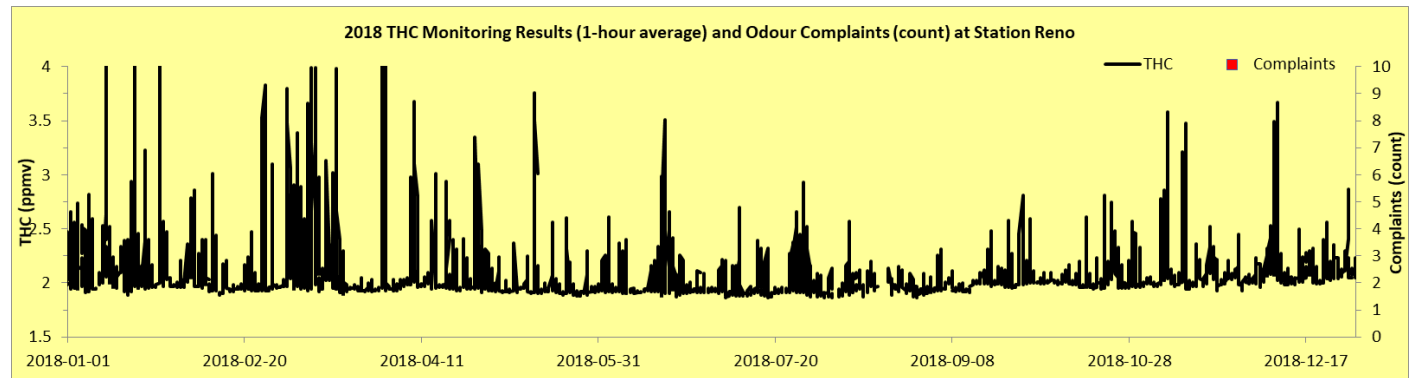
842



Maximum
Number of
Complaints
44
(2014)

Total
Number of
Complaints
0
(2018)

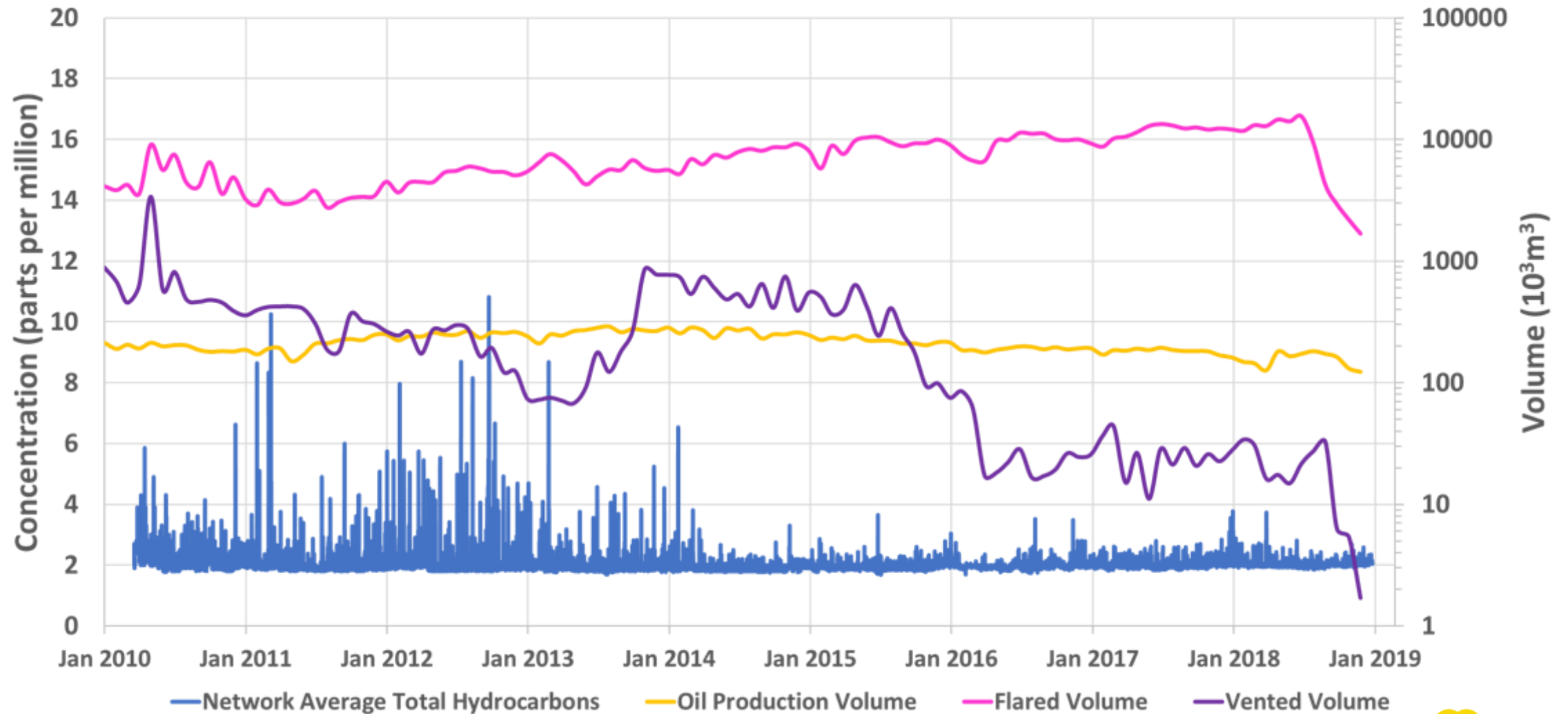
Reno



Maximum
Number of
Complaints
11
(2015)



A History: Looking Back at Key Oil and Gas Production Figures and Air Quality Patterns



Summary

Continuous Monitoring

- The frequency of elevated hydrocarbon events has come down over time
- The number of complaints received by government agencies has come down over time
- Both the place-based regulatory framework implemented by the AER and the process improvements and mitigation measures adopted by local industry have resulted in improvements in air quality
- Ongoing monitoring and assessment is required

Canisters/intermittent monitoring

- Frequency of triggered canister events has come down
- The canister sampling protocol has changed. Both methane and non-methane samples are now being collected



Looking ahead – New AQHI Station

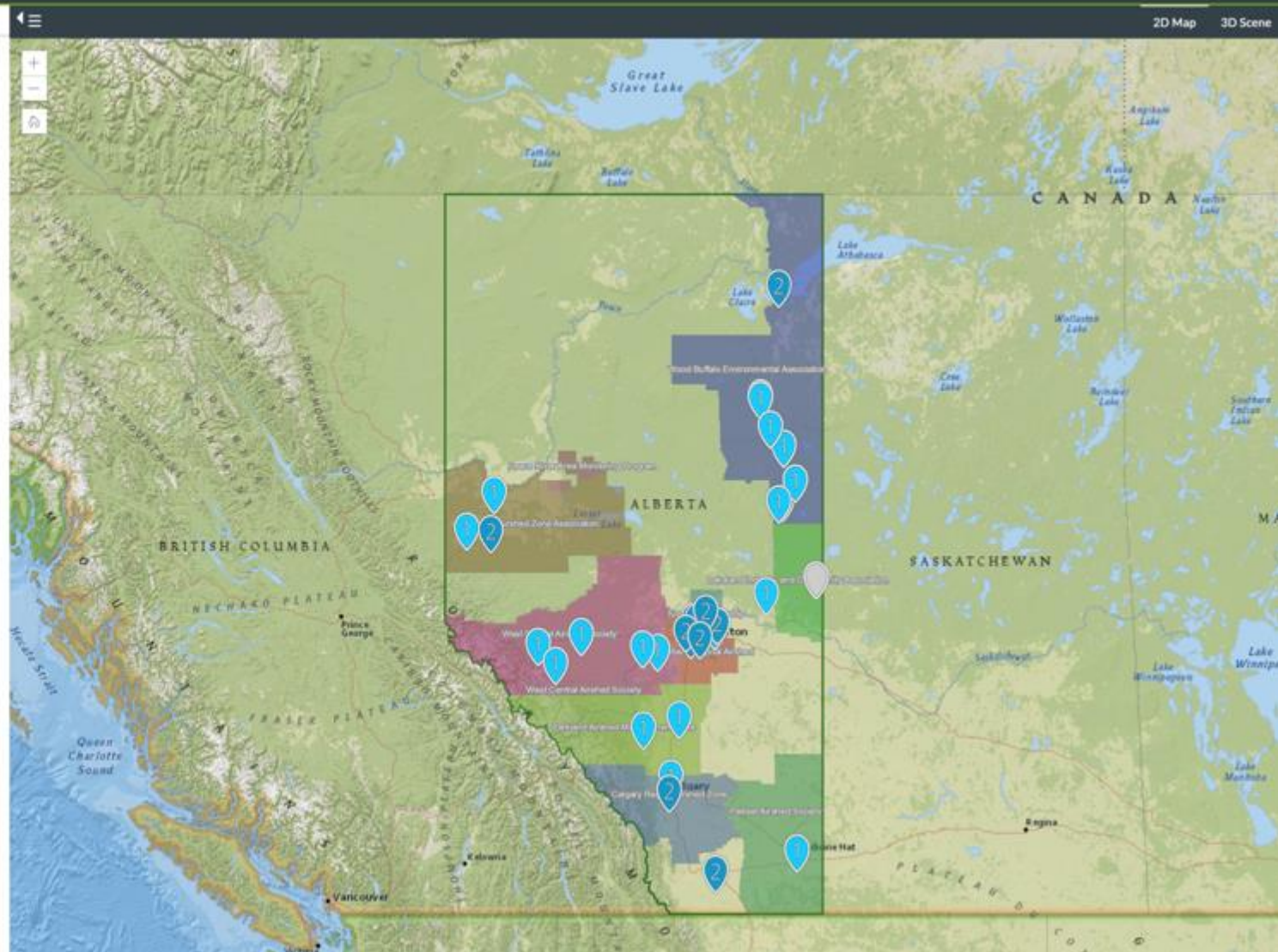
New air monitoring station

- Will provide first AQHI information for Peace River area
- Portable – could be moved at 18 month intervals
- Location – Woodland Cree



AQHI as of: Sep 5 2018 09:00

Community	AQHI	Maximum AQHI Forecast			Last Update
		Today	Tonight	Tomorrow	
Airdrie	1	3	3	3	10:00
Anzac	1	2	2	1	10:00
Beaverlodge	1	2	2	2	10:00
Bon Accord	2	2	2	2	10:00
Bruderheim	1	2	2	2	10:00
Calgary	2	3	3	3	10:00
Caroline	1	Area not forecasted			10:00
Cold Lake	N/A	2	2	2	N/A
Conklin	1	Area not forecasted			10:00
Edmonton	2	3	3	3	10:00
Edson	1	Area not forecasted			10:00
Elk Island	1	2	2	2	10:00
Fort Chipewyan	2	2	2	2	10:00
Fort McKay	1	2	2	1	10:00
Fort McKay South	1	2	2	1	10:00
Fort McMurray	1	2	2	1	10:00
Fort Saskatchewan	2	2	2	2	10:00
Genesee	1	2	2	2	10:00
Gibbons	2	2	2	2	10:00
Grande Prairie	2	2	2	2	10:00
Hinton	1	Area not forecasted			10:00
Janvier	1	Area not forecasted			10:00
Lamont County	2	2	2	2	10:00
Lethbridge	2	2	2	3	10:00
Medicine Hat	1	2	2	2	10:00
Red Deer	1	2	2	2	10:00
Redwater	2	2	2	2	10:00
Rycroft	1	Area not forecasted			10:00
St. Albert	2	3	3	3	10:00
St. Lina	1	2	2	2	10:00
Steeper	1	Area not forecasted			10:00
Stony Mountain	1	Area not forecasted			10:00
Strathcona County	2	3	3	3	10:00
Tomahawk	1	2	2	2	10:00



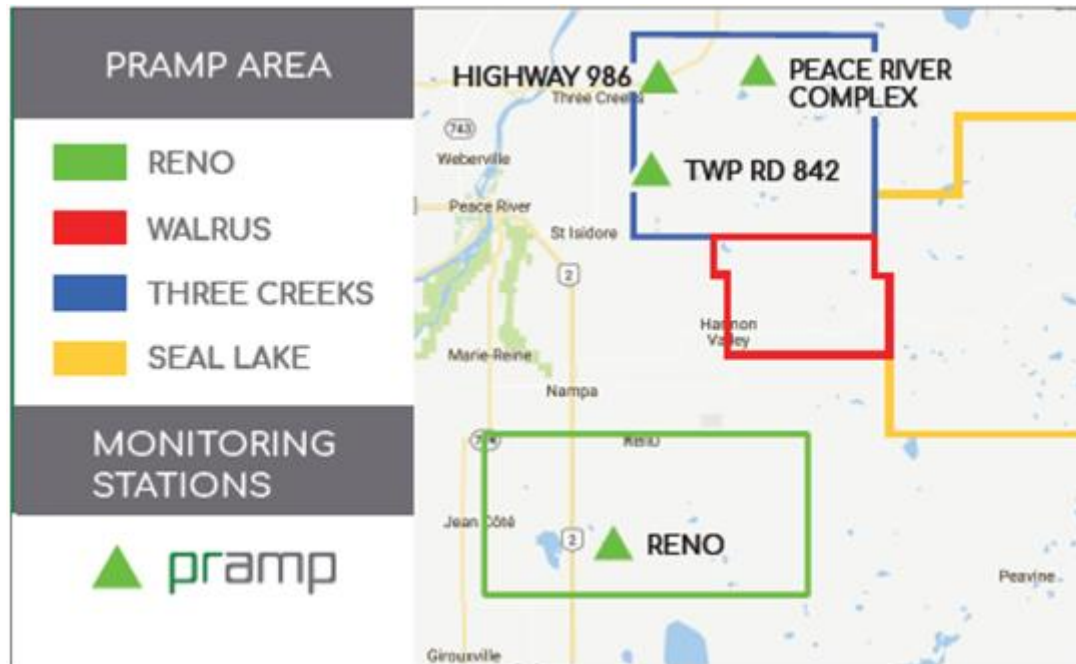
Looking ahead - Outreach



- New school programs and community education about air quality
- Citizen science: Deploying new technology – low cost monitors that show real time results
- Engaging local industry, including honey producers



Looking ahead – Boundary Changes



Review of boundaries and location of stations

- Grimshaw recently joined PRAMP
- Working with communities, Indigenous groups, AEP and AER to assess monitoring gaps



Connect with us

- Check out our updated website
 - <https://www.prampairshed.ca/>
- Sign up for our newsletter
- We want to connect – let us know about local events
- Open House at Cadotte Lake
Sept 18, 11am to 3pm



Questions?



pramp

PEACE RIVER AREA MONITORING PROGRAM